

Appl. No. 09 / 993,218
Comm. Dated July 3rd, 2005
Reply To Office action of April 7th, 2005

Remarks / Arguments

Report of the amendments to the claims

I have rewritten the claims and reduced their number because of the need to make them more accurate, concise and easy to read, this required considerable structural changes so the claims 1–27 have been canceled. Claims 28–46 have been added. With respect to the old claims 24–26, I have left them out from the new claims.

Objections to the rejection of my claims by the examiner

Hypponen et al. invention is an essentially different technology, focuses on load balancing

Hypponen et al. invention (US Pub. No. 20030191957) has nothing remarkably novel to add up to the prior art, the subject matter of their invention consists only of delegating the virus scan functions of intercepting servers to one or more other virus scan dedicated servers. The criterion for selecting the files for scanning is also nothing special, it relies on the simple prior art file extension filtering.

My invention is a truly novel technology because it consists of sophisticated gathering of file identification information in an intercepting server or in a client computer, and sending the information to a remote anti-virus server to be studied and verified before performing more sizable time, transfer bandwidth and processing power consuming transferring and scanning tasks. In my invention the virus scan is in normal use only a last resort and performed when it is absolutely necessary. Hypponen et al. invention has no similar collection of file identification information, no delegated and centralized study of such information, and no similar intention to seek ultimate savings in the total processing time through sophisticated detection logic, the main purpose being only the removal of bottle-necks through simple delegated processing. Hypponen et al. invention processes the files as a whole like the prior art systems, whereas my invention uses normally only a small fraction of the file data, doesn't require file caching, and causes much less delay for the arrival of a non-cached file to the downloading client in a pre-download verification.

Hypponen et al. system has been developed for a clearly different purpose than mine and it employs clearly different methods, putting most weigh on the hardware side relying on raw processing power, whereas my invention relies as much on sophisticated logic as on sophisticated architecture. Hypponen et al. system is good only inside a single organization or internet service provider and would easily become crippled if trying to serve as large a client base as my invention's system because of the simplistic architecture and waste of total processing power. My invention is developed for an Internet-wide use where a single anti-virus server can serve large number of clients across a country or the globe. The fundamental system design and the methods employed show therefor clear, remarkable and undisputable distinctions.

Bates et al. 1 invention is an informational system with simplistic design and unrealistic expectations

Bates et al. 1 invention (USPN 6,721,721) relies on the search engine doing the anti-virus precautions on behalf of the clients by highlighting dangerous web-sites / links and leaving the rest of the responsibility to the user's hands, what works poorly in practise. Besides for an average computer user it is quite obvious that among the most popular web-sites those with most virus threat are software download portals, and there are no truly safe web-sites which collect third-party software. Further, the use of crawling as a primary method for detecting viruses from each listed web-site is also unrealistic and poor system design.

My invention is developed for a totally different environment, it works in normal Internet use and is not tied in any way to a search engine. The search engine server and its functions in Bates invention can in no way be compared to the anti-virus server in my invention. My invention's anti-virus server handles remote requests to study identifications of the downloaded files and other web content and returns the results of the study as a feedback, there is no such functionality in the Bates search engine server, only highlighting of dangerous web-sites / links in the generated Internet search results. The Bates search engine server acts more like a passive intercepting filter for the viewed or downloaded web content by informative means, and practically forms the embodiment of the system, whereas my invention's anti-virus server is genuinely a third-party server with no direct filtering or interception / interfering task, and requires a special service request to be made each time for using its service, and besides is incorporated only as a part of a wider sophisticated anti-virus system architecture and logic. The Bates search engine server has nothing to do with the actual download of the web content, whereas my invention's anti-virus server is purposefully due to be actively engaged in the download process. Further, my system is in normal use almost transparent to the user unlike the Bates system. Further, my invention has no intention to put the ultimate responsibility on the user's shoulders by deficient protection like in the Bates invention. The fundamental system design and the methods employed show therefor clear, remarkable and undisputable distinctions.

Any combination of Hypponen and Bates inventions doesn't produce anything rational or yield extra benefits beyond their own use. Hypponen invention is used for scanning viruses, Bates invention not. Hypponen invention uses file interception, Bates invention not. Trying to combine the filtering criteria or the server functions would make no sense in practise and has no relevancy with my invention.

Bates et al. 2 invention has very poor novelty, uses mainly prior art methods

Bates et al. 2 invention (USPN 6,785,732) is a simple combination of commonly used prior art methods and has nothing genuinely novel invention to present. It is questionable that this Bates 2 "invention" has been granted a patent. Their claimed detection of file viruses, e-mail viruses and unsafe web-sites by the intercepting web-server is clearly a prior art technology.

The Bates 2 invention and the prior art methods used therein which I myself too have referred in the summary of my patent application have no relevancy with my invention. My invention is a truly novel technology because it consists of sophisticated gathering of file identification information in an intercepting server or in a client computer, sending the information to a remote anti-virus server to be studied and verified, receiving results of such study as a feedback and locally acting on those results coordinatedly in an organized manner. This logical process has been clearly and strictly delimited as a remote preventive anti-virus procedure, so there is no room for misconception, it is not aimed for and is logically not valid to be used for local virus detection like the Bates 2 "invention". There is neither any replacement for my invention to achieve its special benefits

brought by remote preventive logic, so even in theory there is no possibility to combine existing inventions in a rational way and come up with the system of my invention.

The Bates 2 invention uses basically the same simple methods as Hypponen invention, being even a little simpler, so it cannot extend Hypponen invention in any way, obvious or contrived. Further, as earlier demonstrated, combining Hypponen invention with Bates 1 invention doesn't yield any rational invention, and the same way, combining Bates 2 invention with Bates 1 invention has even less relevance to my invention.

Conclusion:

As demonstrated above, my invention employs rational and well-working novel methods to provide a rational, realistic and well-working novel solution to a very difficult problem of growing virus population and increasing sophistication of both the virus code and virus dissemination methods. The inventions the examiner referred to as prior art use clearly different methods and provide only half-quality at their best, with weaknesses in total processing power consumption, logic, system design and ingenuity. The benefits of my invention cannot be achieved by earlier inventions in any way, neither combining the earlier inventions does yield anything intelligent or useful beyond their own limited benefits. My invention is a unique sophisticated anti-virus system architecture with unique sophisticated logic which is so far the one and only which can provide the benefits of a well-working remote anti-virus service, and it does it more effectively and reliably than the currently used local systems. Therefor there is no justification to reject my claims.

Special objections concerning my download information system:

Hypponen and Bates 1&2 inventions have no client download register, no update reporting

My download information system's most important purpose of use is to provide information about afterwards detected virus infections for the web content which a client has earlier downloaded from the network and which could not be perceived immediately in the first virus testing procedure. Hypponen and Bates inventions have no related feature. The Bates invention only contains a feature for keeping database of the url-addresses which have already been determined as harmful and for which new virus detections are updated. The Bates invention feature is meant for the system's own use, to improve the service in the subsequent times, not to provide information to the client about afterwards detected virus infections for the web content he has downloaded, like in my invention. Hypponen and Bates 1&2 inventions don't even have a basic feature for storing client personal download information, so there is no obvious way to come up to my special system.

Conclusion:

As demonstrated above, my download information system is a novel security alerting tool for which there is no prior art. The examiner's argumentation is based on detaching irrelevant pieces of technology from out of their technological context, the purpose of use of my system and the prior art systems are clearly different, and the technologies are clearly different as demonstrated.